



1. Product Name
DriClad Mineral Board Fireproofing System

2. Manufacturer
Albi Manufacturing
Division of StanChem, Inc.

3. Product Description

BASIC USE

Albi DriClad is a fiberboard fireproofing system used to enclose structural steel. It is designed for rapid installation to steel columns and beams. Albi DriClad can be cut using standard saw blades and mechanically fastened with the AlbiScrew[®] system which is specially designed for easy rundown or removal. AlbiScrew's unique head design allows greater torque for deeper penetration into the board. The result is a fire proven, sturdy joint that is unique to the DriClad system.

Albi DriClad is suitable for applications to interior surfaces, including substrates initially exposed to the weather during construction, such as perimeter beams, columns, floor/ceiling assemblies and roof/ceiling assemblies. It can be applied on open construction sites in wet or freezing conditions.

ADVANTAGES

Albi DriClad offers the following unique advantages and features:

- Environmentally responsible - Albi DriClad is 100% asbestos free, with no leachable chlorides
- Economical - Albi DriClad is comparable in price to soft fireproofing
- Easy to install - Albi DriClad is lightweight, goes on dry, and requires no water, mixing, special staging or jobsite encapsulation
- Improved jobsite safety - Albi DriClad is a dry fix system. It eliminates the need to wear protective gear or protect adjacent structures, allowing other trades to work alongside DriClad installers

- Moisture resistant - Albi DriClad can be applied to weather-exposed interior surfaces, including semi-exposed conditions at parking garages
- Fire resistant - Albi DriClad is fire rated up to 3 hours

COMPOSITION & MATERIALS

Albi DriClad is a semi-rigid board manufactured from molten volcanic rock which is spun into fine threads, impregnated with a special resin and compressed into durable, easy to use, fire resistant boards. The density and thickness are factory controlled for uniformity.

SIZES

Albi DriClad is available in standard board sizes of 48" x 72" (1219 x 1829 mm), with thicknesses from a minimum of 3/4" (19 mm) up to 3" (76 mm).

PACKAGING

Albi DriClad is shipped in shrink-wrapped pallets.

LIMITATIONS

Contact manufacturer.

4. Technical Data

APPLICABLE STANDARDS

American Society for Testing & Materials (ASTM)

- ASTM C158 Standard Test Methods for Strength of Glass by Flexure (Determination of Modulus of Rupture)
- ASTM C165 Standard Test Method for Measuring Compressive Properties of Thermal Insulations
- ASTM C209 Standard Test Methods for Cellulosic Fiber Insulating Board
- ASTM C423 Test Method for Sound Absorption and Sound Absorption coefficient by the Reverberation Room Method
- ASTM C553 Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications
- ASTM C665 Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
- ASTM C871 Standard Test Methods for Chemical Analysis of Thermal Insulation Materials for Leachable Chloride, Fluoride, Silicate, and Sodium Ions
- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM E136 Standard Test Method for



Albi DriClad Mineral Board Fireproofing System

Behavior of Materials in a Vertical Tube Furnace at 750°C

- ASTM E759 Standard Test Method for Effect of Deflection on Sprayed Fire-Resistive Material Applied to Structural Members

Underwriters Laboratories, Inc. (UL) - Fire Resistance Directory

APPROVALS

Contact manufacturer.

FIRE RESISTANCE

Albi DriClad has the following fire resistance characteristics:

- Fire protection - UL listed for 1 – 3 hours per ASTM E119
- Fire resistance, ASTM E84 - Class A; flame-spread, 0; smoke developed, 0
- Fire hazard classification, ASTM E136 - Noncombustible

For more information on the fire resistance properties of Albi DriClad, see Table 1. Refer to UL Fire Resistance Directory for UL designs and details for each listing.

PHYSICAL CHARACTERISTICS

Albi DriClad has the following physical characteristics:

- Dry applied density, average - 10.5 pcf (168 kg/m³)
- Tensile strength, ASTM C209 - 155 psf (756 kg/m²)
- Compressive strength at 10%, ASTM C165 - 936 psf (4568 kg/m²)
- Moisture absorption, ASTM C209 - <0.5% by volume
- Moisture adsorption, ASTM C553 - <0.03% by volume
- Deflection, ASTM E759 - No delamination
- Corrosion and fungi resistance, ASTM C665 - Noncorrosive; no fungal growth

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- Leachable chlorides, ASTM C871 - None
- Thermal performance, ASTM C158 -
R-value of 4.2 ft²·h·°F/Btu/inch
(2.9 m²·K/W)/100 mm)
- Sound absorption ASTM C423 - NRC 0.80

5. Installation

Refer to Albi's field installation manual for specific design and application details.

PREPARATORY WORK

Albi DriClad requires no special treatment to the steel substrate. Steel should be free of dust and loose particles where noggings are to be installed.

METHODS

Albi DriClad is lightweight, goes on dry and requires no water, mixing, special staging or job-site encapsulation.

Cut board to size using a table saw or broad knife, making due allowance for steel tolerance. Strips 4" (102 mm) wide and 1 1/2" (38 mm) minimum thickness are cut to fit tightly between the top and bottom flanges 24" (610 mm) oc.

Nogging should extend approximately 1/16" (1.6 mm) beyond the flange tip. For beam with webs in excess of 18" (457 mm), use tee-shaped noggings.

Cut side boards to suit depth of the steel section, plus the thickness of the fireproofing board. Install DriClad using AlbiScrews as per Installation Manual.

Cut width of soffit boards to fit between the side panels, which is the nominal width of the flange. Install the panel tight up to the flange with AlbiScrews at 6" (152 mm) centers along each side. For beams with flanges in excess of 12" (305 mm), soffit boards will require additional support using DriClad adhesive.

Note - Use the full number of fasteners recommended. The nominal minimum thickness length of AlbiScrews should be the total thickness of the DriClad boards being fixed together.

CLEANUP

Remove excess material and debris. Remove fireproofing from materials and surfaces not specifically required to be fireproofed.

6. Availability & Cost

AVAILABILITY

Albi DriClad is available throughout the U.S. from Albi Manufacturing in East Berlin, CT.

TABLE 1 ALBI DRICLAD FIRE RESISTANCE RATINGS

Typical systems	Hourly rating	Thickness, in (mm)	UL design no.
Column	1	3/4 (19)	X313
	1 1/2	1 1/4 (32)	X313
	2	2 1/4 (57)	X313
Beams - roof/ceiling (restrained & unrestrained)	1	3/4 (19)	S301
	1 1/2	3/4 (19)	S301
	2	1 1/2 (38)	S301
Beams - floor/ceiling (restrained & unrestrained)	1	3/4 (19)	N307
	1 1/2	3/4 (19)	N307
	2	1 1/2 (38)	N307
Unprotected roof and ceiling assembly (restrained & unrestrained)	1	3/4 (19)	P930
	1 1/2	3/4 (19)	P930
	2	1 1/2 (38)	P930
Unprotected floor and ceiling assembly (restrained)	1	3/4 (19)	D929
	1 1/2	3/4 (19)	D929
	2	3/4 (19)	D929
Unprotected floor and ceiling assembly (unrestrained)	1	3/4 (19)	D929
	1 1/2	3/4 (19)	D929
	2	1 1/2 (38)	D929
Protected floor/ceiling assembly	2	1 (25.4)	D303
Protected floor/ceiling assembly (restrained & unrestrained)	2	1 (25.4)	G301
	3	1 (25.4)	G301
Protected roof/ceiling assembly (restrained & unrestrained)	1	1 (25.4)	P301

¹ Protected assembly required.

COST

For cost information, published price lists and approved applicators, contact Albi Manufacturing.

7. Warranty

Limited Warranty/Limitation of Liability. Seller warrants that its products will meet the specifications which it sets for them. Seller's responsibility under this warranty will be limited solely to replacing the products which prove defective, provided that Buyer gives Seller prompt notice in writing of said defect and satisfactory proof thereof. Product may be returned to Seller only after written authorization has been obtained from Seller. The foregoing warranty is in lieu of all other warranties, whether oral, written, express, implied or statutory. Implied warranties of merchantability and fitness for a particular purpose will not apply. Technical or other advice is furnished by Manufacturer solely as an accommodation and shall not increase the scope of Manufacturer's responsibility or liability. Seller's warranty obligations and Buyer's remedies hereunder are solely and exclusively as stated here-

in: In no event will Seller be liable either for the labor and other associated costs incurred in replacing the product, including, but not limited to, its removal and application, or for other incidental or consequential damage.

8. Maintenance

Maintain in shrink wrap prior to use.

9. Technical Services

Complete technical information, test reports and literature are available from manufacturer. For design assistance, code and insurance information and specific technical services, contact Albi Manufacturing Technical Department.

10. Filing Systems

- First Source for Products
- Sweet's General Building & Renovation Catalog File
- Sweet's International Catalog File
- SweetSource
- Additional product information is available from the manufacturer.